

**DEPARTMENT OF TRANSPORTATION**

DIVISION OF ENGINEERING SERVICES

Office of Structural Materials

Quality Assurance and Source Inspection



Bay Area Branch  
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Contract #: 04-0120F4Cty: SF/ALA Rte: 80 PM: 13.2/13.9File #: 69.28**WELDING INSPECTION REPORT****Resident Engineer:**Siegenthaler, Peter**Address:** 333 Burma Road**City:** Oakland, CA 94607**Report No:** WIR-021604**Date Inspected:** 06-Mar-2011**Project Name:** SAS Superstructure**OSM Arrival Time:** 700**Prime Contractor:** American Bridge/Fluor Enterprises, a JV**OSM Departure Time:** 1900**Contractor:** Zhenhua Port Machinery Company, Ltd (ZPMC), Changxing Island **Location:** Shanghai, China**CWI Name:** Mr. Xu Le Feng.**CWI Present:** Yes No**Inspected CWI report:** Yes No N/A**Rod Oven in Use:** Yes No N/A**Electrode to specification:** Yes No N/A**Weld Procedures Followed:** Yes No N/A**Qualified Welders:** Yes No N/A**Verified Joint Fit-up:** Yes No N/A**Approved Drawings:** Yes No N/A**Approved WPS:** Yes No N/A**Delayed / Cancelled:** Yes No N/A**Bridge No:** 34-0006**Component:** Tower and Orthotropic Box Girder (OBG)**Summary of Items Observed:**

On this day CALTRANS OSM Quality Assurance (QA) Inspector Shailesh Gaikwad was present during the times noted above for observations relative to the fabrication of the SAS Superstructure being performed by Zhenhua Port Machinery Company (ZPMC) at Changxing Island in Shanghai, China. QA observed and/or found the following:

**BAY 10**

This QA Inspector performed randomly Visual Inspection and Magnetic Particle Testing (MT) of approximately 15% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6028 (MT) report for this date. The member is identified as OBG Cantilever Beam. The weld designations reviewed are as follows.

BK16A-001-012

NDT Notification No-08469

**BAY 10**

This QA Inspector performed randomly Visual Inspection and Ultrasonic Testing (UT) of approximately 10% of the area previously tested and accepted by ZPMC Quality Control personnel. This QA Inspector generated a TL- 6027 (UT) report for this date. The member is identified as OBG Cantilever Beam. The weld designations reviewed are as follows.

BK16A-001-012

NDT Notification No-08469

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This QA Inspector observed the following work in progress:

### BAY 10, SMAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040365, 040581 Perform Shielded Metal Arc Welding (SMAW) on OBG Cantilever beam. Joint identified as BK16A-001-001, 002. ZPMC QC Identified as Yan Chang Fang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2212-Tc-U4c. For more information see attached picture number 1.

This QA Inspector observed ZPMC qualified welding personnel identified as 057220 Perform Shielded Metal Arc Welding (SMAW) on OBG Cantilever beam. Joint identified as BK15B-001-013, 012, 014. ZPMC QC Identified as Yan Chang Fang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2211-Tc-U5b.

This QA Inspector observed ZPMC qualified welding personnel identified as 053829, 057258 Perform Shielded Metal Arc Welding (SMAW) on OBG Bike Path. Joint identified as BK007A1-001-030, 031, 032, 033. ZPMC QC Identified as Zhu Feng. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2312-Tc-P4.

This QA Inspector observed ZPMC qualified welding personnel identified as 052493, 044511 Perform Shielded Metal Arc Welding (SMAW) on OBG Bike Path. Joint identified as BK007A1-001-01, 04, 07. ZPMC QC Identified as Zhu Feng. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-P-2112, WPS-B-P-2113 and WPS-B-P-2114.

### FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 054069 Perform Flux Core Arc Welding (FCAW) on OBG Cantilever Beam. Joint identified as BK17C-001-005~034. ZPMC QC Identified as Yan Chang Fang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2132-ESAB and WPS-B-T-2133-ESAB. For more information see attached picture number 2.

### BAY 11, FCAW Process:

This QA Inspector observed ZPMC qualified welding personnel identified as 040785 Perform Flux Core Arc Welding (FCAW) on OBG Traveler Rail. Joint identified as 28TR1-014, 015. ZPMC QC Identified as Shao Hai Lang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2231-ESAB. For more information see attached picture number 3.

This QA Inspector observed ZPMC qualified welding personnel identified as 053316 Perform Flux Core Arc Welding (FCAW) on OBG Traveler Rail. Joint identified as 33TR1-014, 015. ZPMC QC Identified as Shao Hai Lang. The welding parameters as measured using QC's calibrated instrument appeared to be in general compliance with WPS-B-T-2231-ESAB.

Unless otherwise noted, all work observed on this date appeared to be in general compliance with the applicable

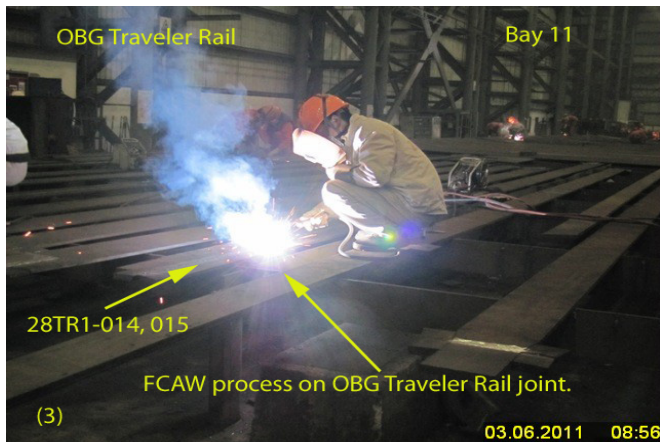
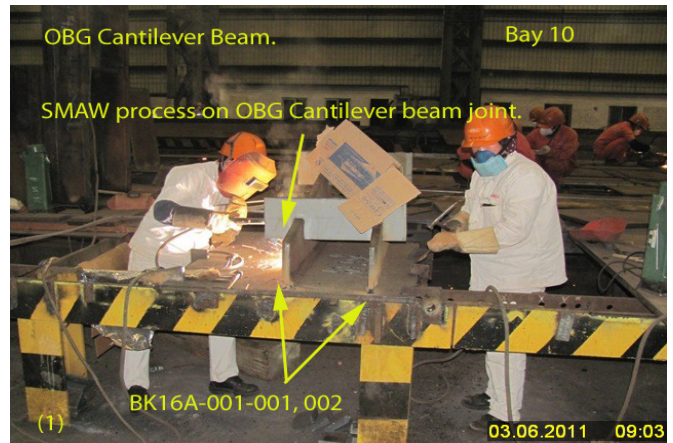
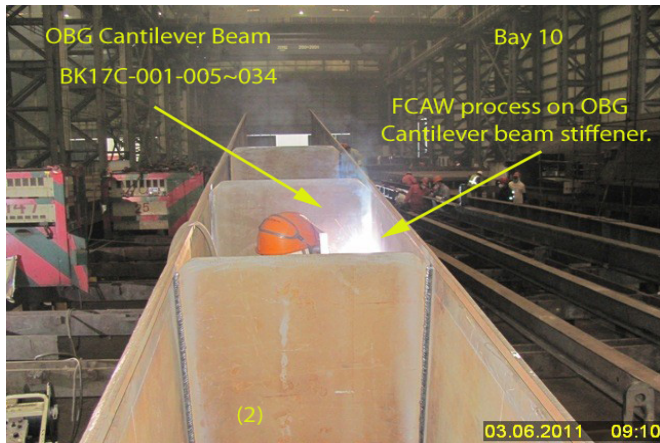
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contract documents.



## Summary of Conversations:

Only general conversation was held between QA and QC concerning this project.

## Comments

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Thomas Ho: 150002048250, who represents the Office of Structural Materials for your project.

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**Inspected By:** Gaikwad,Shailesh

Quality Assurance Inspector

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**Reviewed By:** Clifford,William

QA Reviewer